National Institute of Health  Dr. Ricardo Jorge

Department of Health Promotion and Prevention of Non Communicable Diseases

Helena Alves

Porto, 30-3-2016
UZHELTH visit (Uzbekistan) to INSA
The Department of Health Promotion and Chronic Diseases develops its activities in the field of health promotion, including health determinants and equity, empowerment and health literacy and chronic diseases, as well as in the field of biopathology.
The department of Health Promotion and Chronic Diseases (DPSDC) develops activities in the areas of health promotion and prevention of chronic diseases.

This department is responsible for:
- Conducting research on the etiology, determinants and pathogenesis of chronic diseases with major impact in the Portuguese population;
- Developing effective methodologies of community intervention and evaluation;
- Establishing standard values for biological parameters nationally;
- Contributing to monitoring of individual and collective health;
- Disseminating scientific knowledge and improving health literacy, namely in health promotion and in prevention strategies for chronic disorders.
The DPSDC is organized in four units: Health Promotion, Research and Development, Reference Laboratory and Integrated Laboratory.
The Research and Development Unit (UID) develops research projects integrating biologic, epidemiologic and psycho-social aspects in health and disease.

The ongoing studies focus on cardiovascular disease, including stroke, sudden death, atherosclerosis and inherited disorders of lipid metabolism, and on neurodevelopmental disorders and related issues, such as autism and baby-mother bonding.
These studies aim at the characterization of risk factors and identification of useful biomarkers, with a particular emphasis on genomics and psycho-social approaches.

For this purpose, biobanks and databases representing large population samples are being established, and include information regarding lifestyle, clinical risk factors and genetic background, among others.

These are precious resources that will contribute to a better understanding of biological and psycho-social interactions in health and disease.
Multidisciplinary research activities include:

- Estimation of disease prevalence and frequencies of specific biological and psycho-social risk factors;
- Large scale genome-wide screenings, as part of international collaborations, aiming at the identification of susceptibility genes;
- Characterization of cellular and molecular mechanisms disrupted in chronic disease;
- Pharmacogenetics, aiming at uncovering the genetic basis of the variable patient response to specific drugs;
- Translation of acquired knowledge into prevention and intervention strategies, and evidence-based policy guidelines;
- Health impact assessment, including development and validation of questionnaires and risk assessment;
- Research on diagnostic and planning at the community level.
The Reference Laboratorial Unit (ULR) basis its output on highly complex methodologies such as liquid and gas chromatography, mass spectrometry, atomic absorption and flow cytometry.

Its goal is to implement new diagnostic tests based on previously acquired scientific expertise and to offer specific diagnostic panels for diseases that affect a vast number of citizens, for example, cardio-vascular diseases and diabetes; such panels which include different tests, are intended to characterise parameters not usually available in routine laboratories.
They also include a report that will enhance the clinician to establish, or rule out, the presumptive diagnosis.

At the laboratory level this unit hosts the National Plan to Control Hemoglobinopathies, performing screening and confirmatory tests for many primary care units and hospitals in Portugal.

At the community intervention level, produces validated health diagnosis instruments of population basis, as well as effective intervention methodologies in health promotion and chronic disease prevention.
In the context of health observation, the department develops projects to:

Evaluate the health impact of policies and measures of the health sector as well as others sectors;

Study risk, protection, biological and psycho-social factors of chronic disease, in the context of epidemiologic vigilance.
The Department offers training supervision within its research projects, cooperating with various universities in the country for post-graduate degrees (PhD and MSc programs); offers post-doctoral positions; and promotes ongoing professional education opportunities.

In the respective areas of specialization, the department organizes advanced professional courses and offers consulting services.
Diffusion of Scientific Culture

The Department encourages the dissemination of scientific culture, aiming at promoting citizen literacy for a better management of their resources and their health, as well as to improve the public knowledge on biomedical research.

Promotes the creation of networks, websites and interactive platforms of knowledge;
Organizes conferences and workshops;
Elaborates publications targeting different populations, including associations, institutions and schools;
Publishes the results of the research projects developed, in specialized journals and in magazines and journals for the general public.
The Integrated Laboratorial Unit (ULI) strives to provide the highest quality clinical laboratory testing for the public in general, primary care units and hospitals.

It has 2 locations, one at the Lisbon headquarters and another in Porto, at Centro de Saúde Pública Dr. Gonçalves Ferreira; the laboratory areas covered are: haematology, clinical chemistry, endocrinology and immunology.

The tests performed reflect the commitment to continual quality improvement, a fundamental request for a state laboratory.
Health Literacy

Health Impact Assessment

Mental Health and Child Development Disorders

Cardio and Cerebral-Vascular Diseases

Pathologies of Red Blood Cells

Immunologic Determinants in Chronic Diseases

Reference Methodologies and Materials